7. Green growth and post-growth: navigating conflicting approaches to sustainability

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INTRODUCTION

The United Nations Sustainable Development Goals (SDGs) represent an ambitious global agenda for addressing interconnected social, economic, and environmental challenges. However, meeting these goals involves confronting certain economic, ecological, and political realities that can often be in opposition. In this chapter I explore some of those tensions and how they play out in arguments about the relationship between economic growth and environmental sustainability. At the heart of this tension lies SDG 8, which calls for "sustained, inclusive and sustainable economic growth". This goal sits uneasily alongside environmentally focused objectives on climate action and on life below water and on land. Such an institutional contradiction is replicated in the larger debate in economics and politics about the long-run feasibility of pursuing economic growth on a finite planet.

A key contributor to this debate is the post-growth movement – a loose collection of academics, organisers, and policy thinkers who argue that the current mode of economic organisation is in fundamental contradiction to the need for a sustainable relationship with our ecology. Ultimately, the post-growth movement sees a need for our politics and our conception of economics to move beyond the confines of the common-sense framework of the last two centuries.

This chapter considers the arguments of the post-growth movement in terms of how they critique or reject the current hegemonic thinking within mainstream discourse around both the needs for economic growth and its relationship with the realities of the climate crisis. The purpose is to understand why much policymaking is driven by a pursuit for growth and how that can be reconciled with the increasingly urgent need for a sustainable economic organisation. I will explore the current trend towards green growth – the mainstream belief that technological innovation can allow for the continued race for growth and simultaneously increase environmental sustainability. This will be contrasted with the more radical claims from post-growth proponents and the need for a greater realignment than current economic thinking can allow. The purpose here is not to come down on one side of the argument. Rather, this chapter serves as an introduction to the key debates and tensions that will become increasingly prevalent not just for academics but for policymakers, entrepreneurs, and the wider business community. These tensions and contradictions cannot be ignored and so those interested in progressive solutions should be open to ideas from as wide a spectrum as possible.

Currently, the post-growth movement remains at the margins of mainstream economic thought, but it is important to consider the questions that such a position asks of practitioners working within the current paradigm. It is possible that some common ground can be found, most notably in the growing realisation across the political spectrum of the need for a more activist industrial strategy in response to the climate crisis. An understanding of the ideas driving this kind of paradigm change will be important for all actors within the business sector in the years to come.

GROWTH

At the heart of the post-growth argument is a recognition of a limit in how human society produces goods: a material resources constraint. The finite nature of non-renewable resources on the sole planet we inhabit has fundamental implications for how we organise both our social and economic realms. Over a decade ago, Rockström et al. argued that in the post-Industrial Revolution era human action has led us to a point where we risk breaching the 'planetary boundaries' which 'define the safe operating space for humanity with respect to the Earth system' (2009, p. 472).

The near breaching of these non-negotiable limits is a result of the explosive economic development of the last two centuries. For thousands of years, the size of the economy remained at a very low level ensuring the subsistence of workers and the survival of a certain form of societal organisation but little beyond this – a period that the economist Susskind (2024) memorably labels the 'The Long Stagnation'. This period ended with the revolutions in technology and social and economic organisation that came with the Industrial Revolution leading to a rapid and sustained growth in human prosperity and production. This progress was matched and indeed caused by a rapid rise in economic activity – the economic growth we are all familiar with today. As former chief economist at the Bank of England Haldane notes, such developments 'have been shown, over the course of history, to improve our wealth and our happiness' (Bank of England, 2020).

Whilst this economic progress has not always moved in one direction, the overall trend has been one of rising global economic activity. However, alongside this development have been debates of how equitable the distribution of the benefits of economic growth has been. In the economics discipline there remains a division between those concerned about widening inequality (Atkinson, 2015; Piketty, 2015) and those who argue that the focus should always be on increasing economic development: the Nobel Laureate Lucas famously claimed '[t]he potential for improving the lives of poor people by finding different ways of distributing current production is nothing compared to the apparently limitless potential of increasing production' (2003, n.p.). Such thinking has tended to dominate economic and by extension political thinking, and over time growth has taken on a greater and greater importance in the objectives of developed economies. The pursuit of economic growth, in particular the growth of its statistical avatar of Gross Domestic Product (GDP), has become the common sense in the political economy of developed nations since the end of the Second World War (Barry, 2020) – an attitude that Tomlinson (2023) calls 'growthmanship'.

Such a quest has always had its critics, most notably Kuznets (1934), the man with a good claim to being father of this famous measure. The design of a number that would capture the activity within an economy was seen as crucial to understanding the modern economy: first in the wake of the Great Depression, and then as a fundamental guide for the efficient organisation of wartime states (Coyle, 2014; Stiglitz et al., 2009). However, the idea that such a number should be the driving concern for policymakers was anathema to Kuznets who from the outset was aware of its limitations: 'no income measurement undertakes to estimate the reverse side of income, that is, the intensity and unpleasantness of effort going into the earning of income.

The welfare of a nation can, therefore, scarcely be inferred from a measurement of national income' (1934, pp. 6–7). Kuznets' scepticism on the use of GDP as a measure of social welfare is often cited by proponents of post-growth to highlight that their concerns are not counter to the original concepts and goals of economic measurement (Barry, 2020; Jackson, 2020).

Part of this argument centres around the question of what is excluded from GDP either due to difficulties in measuring certain activities or other more ideological reasoning. As GDP aggregates all the productive activity within an economy, what is counted as productive and why it is counted in such a way takes on great importance. The inclusion and exclusion of different types of labour and economic activity are ultimately decided by the United Nations System of National Accounts (SNA) – the framework by which national measures are harmonised. DeRock (2021) makes the case that these decisions can have both cultural starting points and non-economic reasons for their persistence. For example, domestic work remains outside of the purview of GDP following the path set in the early 20th century. However, the lack of any movement across the boundary is not justified in any logically consistent manner: services, which can face their own measurement issues, firmly crossed the production boundary in 1993. It appears that there is an element of ideological path dependency that prevents this movement for certain types of activity.

Such institutional constraints are often a key argument against relying on GDP as the fundamental measure of economic activity. Susskind (2024) argues that GDP came of age in the Cold War period and so a race for growth became part of the common sense among developed nations. Given that America, then the largest economy in the world, was committed to continual growth, other nations had to follow suit. This pattern has survived both the end of the Cold War, the financial crisis and the Covid-19 pandemic. This persistent 'ideology of growth' (Barry, 2020) is one that the post-growth movement positions itself against for ecological reasons but also because of the bounds such thinking is said to place on policymaking. Alexander (2015) argues that the lock that growth has on the mindset of policymakers fundamentally limits the frame of reference in which policy can be envisioned.

This path dependency for policy around economic growth, in both its form and importance, can been seen in how fundamental it is within the Sustainable Development Goals (SDGs). SDG 8 promotes the ambition to *Promote Sustained, Inclusive and Sustainable Economic Growth, Full and Productive Employment and Decent Work for All.* At the forefront of this goal is the objective of sustaining per capita economic growth, promoting this through increased productivity and technological innovation. This is not a call for growth at all costs as sub-goals recognise the needs for a commitment to sustainability: target 8.4 focuses in on the needs for efficiency on consumption and production, targets 8.3 and 8.5 emphasise the needs for 'decent work'. However, the foregrounding of ever-increasing growth within this goal and its position in the wider framework of the SDGs suggests there is risk for some of signalling a 'problematic assumption … that perpetual economic growth is socially desirable and ecologically sustainable' (Chertkovskaya, 2023, p. 197). Such an assumption butts up against the key belief of those thinkers arguing for radical new ideas in terms of social and economic organisation.

POST-GROWTH VERSUS GREEN GROWTH

At its heart, the post-growth argument states that the supposed benefits of chasing economic growth cannot be justified in terms of the economic and social harm that the economic organisation of capitalism leads to. The continued hunger for material resources both in production and consumption are thought to be unsustainable in the long-run and so demand action now. But that action cannot be within the existing framework – 'the idea of a willingly post-growth capitalism is essentially a contradiction in terms' (Alexander, 2015, p. 50). Such a position then denies the possibility that SDG target 8.1 of sustaining per capita economic growth can be reconciled with an ecologically sustainable form of economic organisation. This paradigm, often known as green growth, is at the heart of mainstream ecological and environmental economics and is advocated for by the Organisation for Economic Co-operation and Development (OECD), the United Nations Environment Programme (UNEP), and the World Bank (Hickel & Kallis, 2020).

Green growth is not an argument for the status quo – economics as a discipline and economists in practice recognise there are dangers in the current consumption of resources (Stern, 2022; Stern & Stiglitz, 2023) – but neither is it the more fundamental change that post-growth argues for. Instead, it aims to break the link between environmental degradation and economic growth through technological and organisational innovation. This decoupling would allow the long-term trend of economic growth and the attendant welfare improvements to remain in place whilst meeting environmental commitments. This would be achieved by a reorganisation but not a refutation of capitalist production.

This push towards greater sustainability within the framework of continued growth is the main aim of international organisations. SDG 8 on decent work and economic growth sits alongside environmentally focused aims such as goal 13 on climate action and goals 14 and 15 regarding life below water and on land. The green growth mindset is paramount in both goal 7 on affordable and clean energy and goal 12 on responsible consumption and production. It is these kinds of step changes in how humans produce and consume that are hoped to lead to the decoupling necessary to align economic growth with increased sustainability. Krausmann et al. (2009) look at the 20th century data on consumption of biomass and mineral materials to explore the relationship. Unsurprisingly, that century was characterised by an explosion in the volume and the nature of material use. There was an eight-fold multiplication in this consumption and changes in production from an agrarian to a 'mineral economy' led to a shift away from renewable biomass and towards less sustainable mineral materials.

However, this growth in material use was outpaced by GDP growth, especially in the post-war era. Consequently, the second half of the century saw a decline in material intensity – the amount of materials needed to produce a unit of GDP. This is evidence then of relative decoupling – the link between GDP growth and material use is loosened but without any decline in the use of finite resources. A similar pattern is found for greenhouse gas use (Haberl et al., 2020). However, these headline figures cover over some important nuances. The overall decline in material uses seems to be driven more by the shift away from biomass use. This combined with a leap in productivity and efficiency leads to greater outputs from mineral inputs. Such technological revolutions include advances in renewable sources of energy which accounted for one-seventh of global primary energy in the mid 2020s (Ritchie et al., 2024). These developments are at the heart of the green growth optimism. Stern & Stiglitz (2023) intimate that the transition to a green growth-based economy will provide for advances in productivity not seen since the Industrial Revolution. However, the continued dominance of non-renewable sources is one of the key arguments within the post-growth movement for why sustained absolute decoupling – where positive economic growth is seen alongside an absolute decline in material use – may elude those proponents of green growth.

Examples of absolute decoupling can be seen in data from the 2010s, particularly in higher-income countries (Haberl et al., 2020). However, post-growth advocates argue that this past evidence is neither widely sustained – global averages do not come close to absolute decoupling – nor a signal that these advances can be replicated in the future. Hickel and Kallis (2020) concede that there is isolated evidence of past absolute decoupling but argue that this is not a reliable guide to what the future path may look like. They reiterate that the evidence on global absolute decoupling is extremely slim, though note that high income countries may be best placed to lead the way on this. To assess how likely this is over the medium to long term they use the standard tool of the economics discipline, the mathematical model. They cite Ward et al. (2016) who predict the trend in material extraction in Australia up to 2100. The model – itself an adaption of one by Hatfield-Dodds et al. (2016) that claims green-growth as a possibility – finds that absolute decoupling is possible in the short to medium term. However, these positive declines in material use soon reverse, leading to a higher level of consumption by the end of the century. This reversal, and the difference in findings, is driven by the rebound effect, linked to the efficiency gains that are at the heart of driving down the use of materials. The gains lead to a decline in costs of goods and service which frees up consumer income to purchase more of those same goods and services (Herring & Sorrel, 2009). This is a direct counter to the technology argument of green growth and neoclassical economics in general. If this rebound effect is strong enough, then pursuit of growth within a capitalist system will always lead to greater material use. Proponents of growth argue that these effects are neither universal nor insurmountable (Stern & Stiglitz, 2023; Susskind, 2024). However, this remains a central pillar of the post-growth argument: if technology cannot achieve permanent and absolute decoupling, and given that ecological limits are fixed, then it is the growth-promoting economic system that must change.

POST-GROWTH ALTERNATIVES

So, what are the implications of moving away from an economy driven by the pursuit of growth and deliberately reducing economic output and material throughput? As established above, whilst not an uncomplicated story, the contribution of growth in the 20th century has overall been seen as welfare-enhancing. Whilst growth has been seen to move in tandem with widening inequality, there is an argument that it is also needed to combat destitution. As Solow (1973) argued, even if growth cannot abolish inequality it can serve to make life at the bottom of the distribution more bearable. Stern & Stiglitz (2023) see the investment in a green growth economy as vital to combatting the dangers of inequality.

The post-growth position rejects these claims and argues for a fundamental shift in the system of economic organisation. Redistributing the proceeds of growth to combat the extant inequality both on a national and global level would no longer be a possible policy lever. What are the implications of this in a post-growth world? If we are to cease the form of development that we have broadly followed for the past two centuries does that mean that we are then frozen in economic time? If so the level of development that we choose to stop at has important implications at both a global and international scale. From economist Milanovic's (2017) point of view stopping at the current level of global development would serve to condemn 'to abject poverty some 15 percent of the world population' without hope of any progress from such a steady state (Daly, 1977). If we are aiming for a steady state economy surely it is incumbent on us to ensure that this state is optimal for all of humanity.

The post-growth counter to these problems tends to centre around the question of planning. Once the contested terrain of economic debates (Blackburn, 1991; Milonakis & Fine, 2009) the claims for a planned over a free-market economy have leaned much more towards the latter in the last four decades. However, this hegemony of free-market thinking within politics and economics is seen as a driver of many of the problems that we currently face. Hickel argues that much of the pain from recessions comes from their unplanned nature. They do not have objectives unlike post-growth which aims to 'reduce ecological impact, reduce inequality, and improve well-being' (2021, p. 1108). Further, in a reply to Milanovic's point he argues that we already have enough resources to ensure the bottom 15 percent can live in comfort. It is just that the marketised economy we live in allows for such an unequal distribution. If richer nations can reduce their consumption, then poorer nations can increase theirs. The 2008 Paris Declaration of the degrowth movement calls for initiating a '*phase of planned contraction* of the "scale" of developed economies' (Alexander, 2015, p. 42 emphasis in original). This suggests a level of planning, and with it state compulsion, that most modern political economies are unfamiliar with. This presents the post-growth programme with a substantial political obstacle. This proposed level of upheaval is seen as insurmountable by many mainstream economic thinkers and disqualifies post-growth as a viable project (Susskind, 2024; Wolf, 2024). Indeed, Stern and Stiglitz (2023) suggest that radical calls for ceasing growth could undermine the acceptance of climate policies in general leading to a worse outcome.

Despite these considerable challenges to its programme, the questions raised by the post-growth movement are crucial for the ecological and economic framework that underpins the SDGs. Chertkovskaya (2023) is correct to point out the contradictions at the heart of the pursuit of growth and sustainability. Further, the politics of reducing environmental damage whilst pursuing growth are also proving difficult for those who claim to be committed to that aim. In all developed nations there is a demand to prioritise the economic over the ecological. These challenges cannot be dismissed out of hand. To conclude, I look at the potentials and possibilities that may arise from these challenges.

GRASPING THE POST-GROWTH CHALLENGES

Whilst it would be difficult to claim that the arguments of the post-growth movement are approaching mainstream acceptance, echoes of the key arguments can be found in the mainstream diagnoses of the ills of modern capitalism (Jackson, 2019). The idea that technological development may not be the panacea that it has been in the past is key to the work of pre-eminent economists. Reviewing the history of growth in America, Gordon (2016) concludes that the possibilities of innovation that drove so much of the economic development in the 20th century may now be less readily available. Here he is backed up by Summers (2014) who has been exploring the 'secular stagnation' of low and slow growth in developed countries in the wake of the financial crisis. In the UK, economist and politician Bell (2024) argues that in many ways the stagnant British economy already bears the hallmarks of post-growth. Looking at the long-run picture, all is not well regarding economic growth in developed nations.

Jackson (2019) considers this stagnation, driven by stalled levels of productivity, an opportunity to rethink how work and enterprise function in such an environment. Does addressing the questions raised by a stalled economy essentially mean we are already thinking about how best to thrive in a post-growth world? Obviously, there are still vast gaps between the two positions, but the extreme points of each do not account for the totality of the debate. Whilst post-growth can be characterised as utopian thinking there is a recognition that such projects can serve to make mainstream economics more thoughtful in their prescriptions. Susskind notes there is merit in the pro-growth argument by 'making us aware of how dangerously we are currently living, prompting the question of how we should respond' (2024, p. 169). This chimes with Alexander's point that post-growth can help to question 'not only how much economic growth is *enough,* but also what we want growth *for*' (2015, p. 36 emphases in original).

Tomlinson believes that part of the misdiagnosis of the mainstream growth approach has come from 'the ill-founded notion that we should seek a single metric by which to judge economic performance' (2023, p. 641). The problem then becomes that the pursuit of that metric becomes an end in itself: employment needs to rise as it feeds into growth rather than because of the inherent benefits of increased well-being that workers derive from employment. However, does a lack of consideration of the quality of that employment have an implication in terms of productivity? Here Tomlinson highlights the work of Rodrik and his focus on 'good jobs ... that provide a middle-class living standard, adequate benefits, reasonable levels of personal autonomy, economic security, and career ladders' (2022, p. 3). He argues that this must be actively pursued by government through an industrial strategy. This is specifically linked to climate policy which 'requires interventions in production and investment decisions … subsidizing green technologies is an indispensable component of a decarbonization strategy' (2022, p. 3). This suggests a level of planning greater than we have seen in most advanced economies in recent years and, whilst acknowledging the political difficulties inherent in this, pushes the mainstream debate closer to that of the post-growth movement.

This movement has gained traction within the mainstream, drawing parallels between the current challenge and the potential impact of that faced during the Second World War (Stiglitz & Stern, 2023). Indeed, these ideas have already begun to manifest within political programmes. Industrial strategy was highlighted in the first speech by the incoming 'pro-growth' UK Chancellor of the Exchequer Rachel Reeves (Fleming & Romei, 2024). Additionally, the United States Inflation Reduction Act of 2022 focused significantly on state investment in new technologies that promote both economic growth and ecological health.

Whilst it would be wrong to argue that the message from mainstream politics and economics is one of a move away from a focus on growth, there are signs that the current moment allows for a fruitful cross-fertilisation of ideas. Given the crucial role industrial actors will play alongside policymakers, the question then is what role can they play in helping to bring the two sides of this debate even closer together?

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